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The Ripple Project: A Trauma-Informed

Mindfulness Intervention for Teacher Stress

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Report

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Abstract

The Ripple Project: A Trauma-Informed

Mindfulness Intervention for Teacher Stress

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Today, teaching is considered to be one of the most stressful professions. Teachers appear to face an ever-growing list of demands, with scarce resources for support. One of the most prevalent demands affecting teachers includes trauma-related stress among students. This study proposes to implement The Ripple Project, a trauma-informed mindfulness group intervention for teacher stress. To evaluate the effectiveness of the intervention program, this study will employ a randomized waitlist control design. Matched pairs *t* tests and a series of repeated measures analyses of variance will be used to assess pre, post, and follow up changes in the study outcome.

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Introduction

Teacher stress, an issue that plagues countries around the world, holds numerous adverse implications for teachers, students, and the quality of education overall (Skaalvik & Skaalvik, 2016). The negative consequences associated with teacher stress expand vast and far. According to research cited by Collie, Shapka, and Perry (2012), up to one third of teachers are stressed or extremely stressed. Teachers who experience stress are more likely to exhibit symptoms associated with burnout (physical, emotional, and cognitive exhaustion) and chronic illness, and are less likely to remain committed to their profession (Reilly, Dhingra, & Boduszek, 2014; Shirom & Melamed, 2006). Stressed teachers are also more likely to demonstrate increased absenteeism and exhaustion, as well as diminished teaching effectiveness, negatively impacting students' learning experiences (Briner & Dewberry, 2007; Jennings & Greenberg, 2009). Given the high prevalence of stress within the teaching profession, more and more teachers are choosing to leave their jobs, costing the U.S. billions of dollars annually (Alliance for Excellent Education, 2005). Overall, teaching is widely acknowledged as a stressful profession, and as a result, numerous researchers have attempted to explain why the issue occurs so frequently and so ubiquitously (McCarthy, Lambert, Crowe, & McCarthy, 2010).

One prominent means of conceptualizing teacher stress has been through the application of Lazarus and Folkman's (1987) Transactional Theory, which reigns as a prominent model within the stress literature. Transactional Theory posits that stress occurs when individuals perceive their demands as outweighing their resources (Lazarus & Folkman, 1987). Demands can be defined as aspects of one's occupational profession that require continuous physical and psychological effort, while resources can be defined

as attributes within one's occupational profession that serve as mechanisms of support (Schaufeli & Bakker, 2004). In the context of teacher stress, some examples of demands include student misbehavior issues, time pressure constraints, low pay, and unreasonably high workloads (Skaalvik & Skaalvik, 2016). Resources for teachers, on the other hand, can range from accessible support personnel within schools to the high availability of school supplies (Lambert, McCarthy, O'donnell, & Wang, 2009). Thus, according to Lazarus and Folkman (1987), teacher stress can be conceptualized as the result of teachers perceiving their available resources as inadequate in the face of their present demands.

This paper aims to draw to attention to a significant demand contributing to teacher stress today: trauma-related stress among students (Wolpow, Johnson, Hertel, & Kincaid, 2009). In the U.S. alone, 10 million children live in communities deemed unsafe; 16 million children belong to families with income levels that fall below the federal poverty line; up to 10 million children witness interpersonal violence annually; close to 11 million children under the age of 18 are being raised by at least one parent with an alcohol addiction issue; and approximately 10 million children have seen their parents be incarcerated at some point in their lives (Paccione-Dyszlewski, 2016). Thus, children all over the nation appear to be plagued by histories of trauma, and as a result, many of them experience symptoms associated with traumatic stress and toxic stress (van der Kolk, 2005). Such symptoms include interpersonal difficulties, emotional dysregulation, depressive symptoms, and diminished cognitive abilities, to name just a few (Frydman & Mayor, 2017).

Inevitably, children are carrying their trauma experiences and related symptoms with them into the school environment, and teachers are being impacted as a result (Wolpow et al., 2009). In some instances, teachers will be directly aware of when students are experiencing trauma (e.g., when students choose to confide in teachers). In these cases, teachers often feel pressured to take on the role of being the mental health gatekeepers, or first respondents, for their students (Hydon, Wong, Langley, Stein, & Kataoka, 2015). In other instances, however, teachers are exposed to the various manifestations of trauma-related stress without direct knowledge about students' trauma histories (Wolpow et al., 2009). As explained by Wolpow et al. (2009), "students struggling with the effects of trauma are more likely to have trouble establishing relationships with adults and peers, regulating their behavior emotions and attention, and/or accomplishing academic challenges" (p. 30). Without direct knowledge about their students' trauma histories, teachers may misinterpret these various trauma-related stress symptoms as students acting out or misbehaving (West, Day, Somers, & Baroni, 2014; Wolpow et al., 2009).

Regardless of whether teachers are directly aware of the fact that they are being exposed to trauma-related stress among students, teachers appear to be particularly under resourced when it comes to dealing with trauma-related stress among students. Teachers, both new and experienced, have reported feeling underprepared to deal with student-related trauma and mental health issues (Koller, Osterlind, Paris, & Weston, 2004). By lacking the necessary support or training, teachers are left to their own devices when it comes to coping with this significant matter (Stephan, Sugai, Lever, & Connors, 2015). Perhaps even more concerning, is that teachers become susceptible to the countless

consequences associated with unsupported exposure to trauma-related stress, including: decrease in confidence, withdrawal from colleagues, absenteeism, exhaustion, irritability, decreased motivation, decreased effectiveness in their occupational roles, and burnout (Wolpow et al., 2009).

In attempt to mitigate trauma-related issues plaguing students and teachers in schools, a number of professionals have begun to implement trauma-informed care initiatives. Trauma-informed care is "a term coined in the 1990s to describe service delivery that integrates an understanding of the pervasive biological, psychological, and social sequelae of adverse childhood experiences and trauma with the ultimate aim of ameliorating, rather than exacerbating, their effects" (Baker, Brown, Wilcox, Overstreet, & Arora, 2015, p. 2). Bath (2015) identifies three pillars integral to trauma-informed care: (1) fostering a safe and secure environment, (2) cultivating trusting and caring relationships among individuals within a system, and (3) promoting coping skills that equip individuals to manage emotions and impulses associated with trauma-related stress. Trauma-informed care initiatives for teachers have been integrated into schools in a variety of different ways, ranging from mental health consultations for teachers to staff training meetings (Martin, Ashley, White, Axelson, Clark, & Burns, 2017). However, the majority of existing trauma-informed care initiatives for teachers focus on equipping teachers with the skills to help recognize trauma symptoms in students, yet virtually no trauma informed initiatives for teachers focus on equipping teachers with self-care strategies (Wolpow et al. 2009).

Thus, teachers, similar to firefighters and police offers, are considered to be first responders, given the fact that they tend to be on the frontline when it comes to

responding issues of trauma (Wolpow et al., 2009). However, in comparison to other professionals considered to be first responders, teachers receive limited training around ways to recognize trauma in students, and essentially no training on how to engage in self-care (Wolpow et al., 2009). Without these crucial resources, teachers are susceptible to a myriad of negative consequences, ranging from increased stress and burnout, to the experience of vicarious trauma, a concept which will be further expanded upon within this paper (McCarthy, Lambert, O'Donnell, & Melendres, 2009; Wolpow et al., 2009).

This study therefore proposes to implement the Ripple Project, a group intervention program for teacher stress. The intent of this program is to provide teachers with psychoeducation and self-care strategies for stress, and ultimately create a ripple effect; as teachers feel more supported and more equipped to deal with their professional environment, positive effects will ripple out onto students, administrators, and others involved within the school system. The Ripple Project integrates aspects of trauma-informed care as well as mindfulness (focusing one's attention on the present moment without judgment) into its curriculum (Kabat-Zinn, 2003). The intent behind incorporating mindfulness in addition to trauma-informed care practices into the Ripple Project stems from the fact that mindfulness appears to be one of the most prevalent self-care techniques being used to help teachers deal with stress today (Hwang, Bartlett, Greben, & Hand, 2017). Research consistently shows that mindfulness is an effective means of helping teachers cope with job stress and burnout, and works as a successful method of elevating teachers' feelings of well-being (Taylor, Harrison, Haimovitz, & Oberle, 2016). Further, growing evidence demonstrates that mindfulness and trauma-informed care make a particularly complementary match; mindfulness-based methods are

an effective means of promoting self-regulation (resilience, coping) skills for individuals exposed to trauma, both directly and indirectly (Bethell, Gombojav, Solloway, & Wissow, 2016).

Ultimately, the Ripple Project is based on a premise that mirrors the Transactional Theory framework: that teacher stress can be reduced by equipping teachers with an effective set of resources, so that they are able to more effectively cope with their ever-growing list of demands (Lazarus & Folkman, 1987). The structure of the proposed intervention considers one of the most prevalent demands burdening teachers today (trauma related-stress among students; Wolpow et al., 2009), as well as one of the most prevalent resources being used to mitigate teacher stress today (mindfulness strategies; Reiser & McCarthy, 2017; Hwang et al., 2017). The Ripple Project curriculum seeks to equip teachers with self-care and coping strategies rooted in mindfulness, and psychoeducation around trauma-related stress and its various manifestations. Further, the intervention maintains three primary, inter-connected goals: (1) to reduce teacher stress, (2) to instill mindfulness skills as a means of self-care, and (3) to improve teachers' understanding of trauma-related stress among students.

Notably, the Ripple Project will take place within Austin Independent School District (AISD) elementary schools, in conjunction with trauma-informed mental health care efforts currently taking place at these schools. Schools involved within the study will be receiving mental health care services from the Vida Clinic, a school-based mental health clinic that provides a wide range of services including individual, family, and group counseling, teacher groups, and school-wide workshops. The Vida Clinic operates based off of a trauma-informed care model, and thus integrates trauma-informed care in

all of its services. The Vida Clinic's primary approach in its application of trauma-informed care is based on a whole school, triad model: by providing trauma-informed services to students, staff (including teachers), and parents, the entire school system can function more adaptively. Thus, the proposed intervention was developed with the support of Vida Clinic administrators, and is intended to serve as a supplementary service within a series of trauma-informed mental health care initiatives currently taking place at participating schools included within the study. Before delving into further details associated with the intervention program, the following sections will provide wider context surrounding teacher stress, trauma-related stress, and the development of the Ripple Project.

Integrative Analysis

Teacher Stress: An Epidemic

Teacher stress can be defined as "the experience by a teacher of unpleasant, negative emotions, such as anger, anxiety, tension, frustration, or depression, resulting from some aspect of their work as a teacher" (Kyriacou, 2001, p. 104). Dicke et al. (2014) cited research indicating that of any profession, teachers report the highest degree of self-perceived stress in the workplace. According to the *MetLife Survey of the American Teacher: Challenges of School Leadership* (2013), only 2% of teachers reported not feeling stressed on the job. Consequently, job satisfaction among K-12 teachers in U.S. public schools has reached its lowest point within the last 25 years (Markow, Macia, & Lee, 2013).

There are a number of reasons why teachers are more stressed and less satisfied than other professionals. On a daily basis, they are forced to deal with difficult parents,

poor student behavior, negative colleague interactions, and unrealistic accountability measures from the federal and local administration (Mazzone & Miglionico, 2014). Such challenges exist within the context of heavy and unmanageable workloads, demanding time pressures, and negative work conditions (Kyriacou, 2001). Further, it is common for teachers to feel underappreciated by students, parents, and administrators, increasing their levels of stress and decreasing their commitment to the profession overall (Clement, 2017).

With teachers experiencing increased stress and decreased work satisfaction, a number of costs emerge. In the United States alone, $2.2 billion is spent annually to mitigate high teacher turnover rates in public school systems (Alliance for Excellent Education, 2005). Yet, the costs of teacher stress transcend far beyond the financial sphere. As more teachers grow stressed, more teachers continue to exhibit physical exhaustion, physical illness (i.e., headaches, stomach pain, and high blood pressure), general loss of enthusiasm, a diminished sense confidence, and a decrease in the quality of their personal relationships (Richards, 2012). Given the fact that teacher stress is such a crucial issue, one question becomes salient: why is it happening?

Conceptualizing Teacher Stress Through the Transactional Theory

To best conceptualize why teacher stress occurs, it is worth reviewing Lazarus and Folkmans' (1987) Transactional Model, a prevalent model within the stress literature. Lazarus and Folkman's (1987) Transactional Model can be classified as one of the several "balance" models of stress (Meurs & Perrewé, 2011). Other existing models include the Effort-Reward Imbalance Model (ERI; Siegrist, 1996), which highlights the relationship between gains and costs at the workplace; the Job Demands-Resources

Model (JD-R; Bakker & Demerouti, 2007), which points to the imbalance between high demands and insufficient resources as the cause for job stress; and the Demand-Induced Strain Compensation Model (DISC; de Jonge & Dormann, 2006). DISC categorizes demands and resources as belonging to one of three categories: physical, emotional, or cognitive. Sufficient coping requires that the individual's type of resources correspond with and support the type of demands they come to face (i.e., cognitive demands corresponding with cognitive resources; de Jonge & Dormann, 2006).

These "balance" models conceive that stress occurs through an imbalance between individuals' demands and resources (or in the case of ERI, between efforts and rewards). Demands can be defined as the physical, psychological, social, or organizational facets of a job that necessitate continued physical and psychological effort (Schaufeli & Bakker, 2004). Resources, on the other hand, can be defined as the physical, psychological, social, or organizational features of a job that either reduce job demands, promote individual growth, or support the achievement of goals (Schaufeli & Bakker, 2004). According to these models, when an individual experiences an outweighing of demands over resources, they are more likely to experience stress.

Like the other existing "balance" models of stress, Lazarus and Folkman's (1987) model considers the number of demands versus resources teachers possess, and how this ratio may impact their levels of stress. Further, the model specifically focuses on the concept of cognitive appraisal. Cognitive appraisal is the natural evaluation process that occurs when individuals determine how their current circumstances may be impacting their welfare (Lazarus and Folkman, 1987). Lazarus and Folkman's (1987) emphasis on cognitive appraisal demonstrates the core of their theory; that stress is a perceptual,

interpretational process – individuals' perceptions of their own experiences leads to the manifestation of increased or reduced stress. Thus, according to the Transactional Model, if an individual appraises to possess more resources than demands, this individual is less likely to feel stressed. Lazarus (2003) indicated that this appraisal process also impacts the type of coping employed by an individual who is experiencing stress. Coping can be defined as the cognitive, behavioral, and emotional efforts an individual engages in to manage or assuage stress (Folkman, Lazarus, Dunkel-Schetter, DeLongis & Gruen, 1986).

A number of studies have applied the Transactional Model to the context of teacher stress. In a study conducted by McCarthy, Lambert, and Reiser (2014), the researchers found that teachers who perceived to possess an outweighing of demands over resources were also more likely to experience lower job satisfaction, higher rates of burnout, and reduced commitment to their professional roles. Foley and Murphy (2015) found that among a sample of Irish teachers, adverse aspects of teachers' work environments (i.e., negative relationships with parents and colleagues and limited school support resources) played a role in their appraisals of stress and significantly predicted their levels of emotional exhaustion. In another study, Yoon (2002) found that when teachers qualified their relationships with their students as negative, they were more likely to feel stress and negative emotions. These three studies demonstrate two important points. First, that the consequences associated with teacher stress are significant, and second, that certain conditions afflicting teachers leave them more susceptible to perceive or appraise their experiences as stressful. Such conditions, or demands, will be further explored below.

Demands of Teachers: Shedding Light on Trauma-Related Stress

As described before, when a teacher perceives to be facing an imbalance with demands outweighing resources, he or she is more likely to become stressed and experience adverse implications associated with stress. Teachers appear to face a number of demands that affect their levels of stress. Some common demands teachers face include lack of support from administrators, discipline and misbehavior issues with students, unmanageable workloads, pressure associated with standardized testing outcomes for students, and conflicts with co-workers (Skaalvik & Skaalvik, 2016). While these demands certainly merit attention, one additional, and particularly significant demand worth examining further is trauma-related stress among students (van der Kolk, 2005; Wolpow et al., 2009). The following section will define the concept of trauma-related stress, expand on its prevalence among the student population, and will then delve into the severe implications this demand holds for teachers.

Trauma-related stress among students. Traumatic stress is characterized by its unpredictably, as well as the feelings of horror and helplessness it evokes (Walkley & Cox, 2013). Traumatic stress is defined by the Substance Abuse and Mental Health Services Administration (SAMHSA) as resulting from "an event, series of events, or set of circumstances that is experienced by an individual as physically or emotionally harmful or life threatening and that has lasting adverse effects on the individual's functioning and mental, physical, social, emotional, or spiritual well-being" (SAHMSA, 2012, p. 1). Embedded within the concept of traumatic stress is the idea of complex trauma, which entails the experiencing of numerous, persistent, and prolonged traumatic events, often of interpersonal nature early on within life (van der Kolk, 2005). Such

traumatic events can include violence, neglect, sexual abuse, substance abuse, death, home destabilization, and a variety of other adverse childhood experiences (Brunzell, Waters, & Stokes, 2015). Individuals who have been exposed to such events become victim to an assortment of adverse consequences impacting their cognitive, emotional, and physical development (Frydman & Mayor, 2017). Similar to traumatic stress is toxic stress, which can be just as damaging to psychological and physical development as traumatic stress (Walkley & Cox, 2013). Toxic stress emerges after an individual has been forced to deal with persistent, prolonged, and severe adversity, and is identified as being slightly less far along the continuum in terms of severity than traumatic stress (Walkley & Cox, 2013). This paper will specifically use the term trauma-related stress as a means of encompassing both concepts of traumatic stress and toxic stress.

Notably, the concept of trauma-related stress is broad; to experience trauma, one does not necessarily have to experience a catastrophic event. Thus, the experience of trauma appears to be more common than one may intuitively expect (van der Kolk, 2014). In fact, according to Bessel van der Kolk (2005), a well-known expert in the field of trauma, trauma-related stress among children "is probably the single most important public health challenge in the United States" (p. 402). Based on the *Child Maltreatment 2015* Report conducted by the U.S. Department of Health and Human Services, in the year 2015 alone, Child Protective Services (CPS) agencies received approximately 4 million referrals involving an estimated 7.2 million children. Referrals were made on the basis of sexual and physical abuse and neglect, and only about 2 million referrals were substantiated (US Department of Health and Human Services, 2015**)**. Notably, these staggeringly high numbers do not account for children who were not referred to CPS, or

for children who underwent other traumatic events, such as medical procedures, illness, community violence, or bullying (van der Kolk, 2005; Paccione-Dyszlewski, 2016).

The implications of childhood trauma reach far. In the Adverse Childhood Experiences (ACE) study conducted by Kaiser Permanente and the Centers for Disease Control and Prevention, the two organizations examined adverse childhood experiences among a sample of 17,337 adults (Felitti et al., 1998). The study found two significant pieces of information: first, that adverse childhood experiences and trauma are far more common than initially recognized among the child population, and second, that adverse childhood experiences have a significant impact on children's' development and trajectories as adults (Felitti et al.1998). Based on findings from the ACE study, children who were victim to adverse childhood experiences were more likely to experience health problems, including cancer, stroke, diabetes, and heart disease (Felitti et al., 1998). Further, these same children were more likely to engage in substance use, depression, suicide, obesity, domestic violence, sexual promiscuity, and sexually transmitted diseases (Felitti et al., 1998). Thus, children who are victim to adverse childhood experiences carry on the scars of trauma far beyond their childhood (Perry & Szalavitz, 2017).

Ultimately, such prevalent rates of trauma impact children's emotional well-being and capacity to thrive as students within schools. According to The National Child Traumatic Stress Network in the United States, 40% of students in the United States have witnessed and or experienced traumatic stressors (Brunzell et al., 2017). Traumatic stressors do not just exist in the home environment, but can also occur within the context of schools (e.g., school shootings, student suicide; Hydon et al., 2015). Whether it stems from the home, or occurs within the school, trauma-related stress takes a major toll on

students; the issue manifests itself in a variety of ways, with some students engaging in self-isolation, and others becoming more aggressive or hyperactive (Frydman & Mayor, 2017).

Shonk and Cicchetti (2001) found that children who had been maltreated were less likely to be engaged in school, and more likely to demonstrate adverse externalizing and internalizing behaviors in comparison to non-maltreated children. In a study conducted by West et al. (2014), the researchers implemented qualitative interviews to gain insight on how trauma inflicted youth experienced the school environment. Based on these interviews, the researchers found that common trauma-related behaviors that manifested among students within the school environment included displays of anger emotions (i.e., frustration, irritability, and stress), as well as aggressive actions (i.e., verbal fights and aggressive posturing). Interviewed participants attributed their aggressive behaviors within school to negative circumstances outside of the school environment, claiming that certain stimuli within the school (such as certain sounds and words) would trigger a trauma or stress response. The students acknowledged that these trauma-related behaviors affected their ability to focus within the classroom, and negatively impacted their relationships with teaching personnel (West et al., 2014).

The research concerning the impact of trauma on students is vast. What has received less attention in the literature, however, is the toll student trauma takes on teachers (Reker, 2016). A primary question thus emerges: how does trauma-related stress among students ultimately connect to the widespread issue of teacher stress? The following section seeks to answer this question.

The toll of student trauma on teachers. Student trauma appears to be inextricably linked to teacher stress (Ball & Butcher, 2011; Hydon et al., 2015). Many students who experience trauma-related stress lack the resources, access, or motivation to seek treatment; thus, the responsibility of mental health care, to one extent or another, tends to falls on teachers (Brunzell et al., 2015; Roeser & Midgley, 1997; Walter, Gouze, & Lim, 2006). Teachers are therefore not only tasked with heavy workloads and multiple roles within the school context, but also with the responsibility of being the gatekeepers for student mental health. This is such a prevalent issue, that the U.S. Surgeon General recommended that teachers be trained to both recognize and manage mental health difficulties among students (U.S. Public Health Service, 2000).

Unfortunately, despite the Surgeon General's call in 2000, the majority of schools continue to leave teachers unequipped with the necessary resources needed to manage trauma-related stress among students (Hydon et al., 2015; Koller et al., 2004; Weston et al., 2008; Williams et al., 2007). This is highly problematic given the fact that trauma is so prevalent among the student population, and thus teachers more likely than not to work with traumatized students (Wolpow et al., 2009). Further, teachers who remain exposed to trauma-related symptoms among students with no support or training become vulnerable to developing a myriad of adverse consequences.

One of these adverse consequences includes vicarious trauma (Wolpow et al., 2009). Vicarious trauma tends to occur when teachers are aware of their students' trauma experiences. When teachers become vicariously traumatized, they internalize their students' experiences with trauma, and begin to exhibit similar trauma-related symptoms as their students (Wolpow et al., 2009). Vicarious trauma leads to numerous symptoms

that can adversely impact teachers in a variety of life facets. One symptomatic manifestation of vicarious trauma includes compassion fatigue, which is defined by Wolpow et al. (2009) as, "fatigue, emotional distress, or apathy resulting from the constant demands of caring for others" (p. 38).

Vicarious trauma impacts teachers on a professional and personal level. Teachers who internalize their students' trauma symptoms will often experience diminished professional performance in a variety of different ways (Wolpow et al., 2009). Some teachers will experience decreased motivation, diminished morale, and reduced quality and quantity in completing job tasks; others will withdraw from colleagues or more frequently be absent from, irritable with, or exhausted by their jobs (Wolpow et al., 2009). The impact vicarious trauma can have on teachers' personal lives creates a seemingly endless list, containing items like: loss of sleep, impaired immune system, anxiety, guilt, nightmares, diminished concentration, lowered levels of self-efficacy and emotional regulation, and even reduced interest in physical intimacy (Wolpow et al., 2009).

Notably, not all teachers will become vicariously traumatized when exposed to trauma-related stress among their students. However, exposure to trauma, without the necessary resources for support, still increases teachers' chances of experiencing symptoms of stress (Stephan et al., 2015). This is due to the fact that students who experience trauma-related stress tend to engage in externalizing behaviors such as aggression, withdrawal, defiance, hyperactivity, reactivity, impulsiveness, and rapid, spontaneous emotional swings (Wolpow et al., 2009). Research demonstrates that such behaviors, which may be conceptualized by teachers as students simply acting out or not

focusing, make up the most significant demand contributing to teacher stress today: student misbehavior (Perry & Svalavitz, 2017; Hydon et al., 2015; McCarthy, Lineback, & Reiser, 2009).

Thus, since nearly all teachers will work with students with a history of trauma, nearly all teachers are also susceptible to developing trauma-related stress issues, ranging from a mere increase in stress to the more paralyzing symptoms associated with vicarious trauma (Wolpow et al., 2009). Clearly, trauma-informed stress among students is a significant demand facing teachers today, and developing specific resources for this demand is imperative.

Resources for Mitigating Teacher Stress

This paper therefore proposes to implement a group intervention program that directly targets teachers, and takes a trauma-informed approach in helping them deal with teacher stress and trauma-related stress among students. Prior to delving into the details of the proposed intervention program, however, the following section will overview the concepts of trauma-informed care and mindfulness – two essential resources integrated into the proposed group intervention program.

Trauma-informed care as an effective intervention tool. Trauma-informed care can be defined as "an organizational, structural, and treatment framework that involves understanding, recognizing, and responding to all kinds of trauma" (Paccione-Dyszlewski, 2016, p. 8). The Substance Abuse and Mental Health Service Administration (SAMHSA, 2014) sought to outline the key structural components of trauma-informed care by creating what they termed the four "R's." The four "R's" include: (1) realizing the widespread effect of trauma, and considering various means of coping with its

implications; (2) recognizing symptomatic manifestations of trauma that are emerging among staff, clients, or individuals involved within the given system; (3) responding by applying trauma-informed practices, procedures, and policies; and (4) resisting re-traumatization through engaging in specific, trauma-informed strategies. SAMHSA (2014) also identified four outcomes or goals integral to trauma-informed care, including the prevention of adverse, traumatic events from occurring, the instillation of self-regulation (resilience, coping) skills within individuals, the avoidance of re-traumatization, and the assistance of individuals who have experienced trauma to return to prior functioning (Chafouleas, Johnson, Overstreet, & Santos, 2016). According to SAMHSA (2014), incorporating trauma-informed care can be productive and effective within any setting that serves victims of trauma.

Schools, in particular, lend themselves to a trauma-informed care approach, given the fact that they serve such a wide population of traumatized youth, and they are a hub for youths' social and emotional development (Atkins, Hoagwood, Kutash, & Seidman, 2010). However, there is still limited integration of trauma-informed mental health care initiatives in the U.S. education system (Cole, Eisner, Gregory, & Ristuccia, 2013; Dorado, Martinez, McArthur, & Leibovitz, 2016). This is due to a number of reasons, including the fact that the framework is relatively new, and funding is currently limited (Dorado et al., 2016). Further, many school-based programs, as of now, focus on disciplinary measures for disruptive and aggressive behaviors among students – a strategy that neglects to address the impact of trauma on student behavior (Hahn et al., 2007; Mendelson, Tandon, O'Brennan, Leaf, & Ialongo, 2015).

More and more schools are therefore being encouraged to incorporate trauma-informed interventions and services (SAMHSA, 2014). Further, schools are encouraged to take a whole-school, comprehensive approach when implementing trauma-informed initiatives (Chafouleas et al., 2016). Chafouleas et al. (2016) explains, "implementation efforts to attain [outcomes of effective trauma-informed practice] must focus not only on supporting student needs but perhaps even more importantly on supporting adult behavior, with the overarching goal to ensure safe and supportive environments for all students" (p. 148). Thus, trauma-informed care emphasizes that focusing on teachers is an integral part of the equation. Not only are teachers suffering from tremendous amounts of stress (both trauma-related and not) themselves, but in order to create an effective and comprehensive trauma-informed system that positively impacts students, teachers must also receive care (Chafouleas et al., 2016; Wolpow et al., 2009).

One quintessential example of an effort to deliver a whole-school, trauma-informed program includes the University of California, San Francisco's Healthy Environments and Response to Trauma in Schools (HEARTS) program (Dorado et al., 2016). The HEARTS program is characterized by its three-tiered approach. Tier 1 focuses on primary prevention efforts, including stress training for students and psychoeducation and consultation around coping with stress for staff; tier 2 involves secondary intervention efforts, including skill-building interventions for students and wellness groups for teachers; and tier 3 focuses on tertiary intervention efforts, and hones in on delivering on site, trauma-informed individual, group, and family therapy to students, and crisis intervention efforts for staff (Dorado et al., 2016). Based on its program evaluation, the HEARTS program demonstrated a number of promising results

at its various participating schools, including improvements in students' rates of attendance, learning, trauma symptoms, and rates of suspensions. Additionally, school personnel reported a significant increase in their understanding of trauma and how to use trauma-sensitive strategies at school (Dorado et al., 2016).

It is important to note that the HEARTS program is one of the few currently existing, whole-school, trauma-informed care programs being implemented today (Dorado et al., 2016). One of the many promising aspects of the HEARTS program is the fact that it incorporates wellness groups for teachers within its framework. However, it is important to note that when examining the research data put forth by the HEARTS program, the authors present minimal information regarding the wellness groups implemented for teachers. Rather, within Dorado et al.'s (2016) HEARTS program evaluation, teacher wellness groups are only mentioned once, in a diagram within the appendix section. Further, no measures involved within the HEARTS program evaluation focused on capturing data regarding the impact of the teacher wellness groups.

Based on a literature search, there appears to be no currently existing research evaluations specifically examining trauma-informed group interventions for teachers. Thus, not only does there appear to be limited implementation of trauma-informed group interventions for teachers in general, but virtually no research specifically investigating the effectiveness of such groups. Therefore, a clear gap emerges. In turn, this study proposes to implement - as well as evaluate the effectiveness of - a trauma-informed group intervention for teachers.

Additionally, this study seeks to incorporate mindfulness within its curriculum structure. There are two primary reasons why mindfulness was chosen to be included in

the proposed intervention program: (1) mindfulness is one of the most popular techniques being integrated into existing teacher group interventions today and (2) mindfulness techniques appear to directly align with aspects of trauma-informed care (van der Kolk, 2014). These points of rationale will be expanded upon below.

Mindfulness groups for teachers. Jon Kabat-Zinn, the original creator of Mindfulness Based Stress Reduction (MBSR), defines mindfulness as "the awareness that emerges through paying attention on purpose, in the present moment, and nonjudgmentally to the unfolding of experience moment by moment" (Kabat-Zinn, 2003). Mindfulness-based interventions offer participants a large variety of benefits. Individuals who actively participate in mindfulness exercises are more likely to develop nonjudgmental awareness of perception, emotion, sensation, and cognition (Hulsheger, Alberts, Feinholdt, & Lang, 2012). Also, mindfulness-based interventions seem to be particularly beneficial for individuals in stressful work conditions. In a study conducted by Hulsheger et al. (2012), the researchers found that mindfulness promotes job satisfaction, helps prevent burnout, and decreases the likelihood of emotional exhaustion among employees who work in emotionally demanding positions. Mindfulness has also been shown to improve social relationships, increase resiliency, and improve task performance within the work environment (Hulsheger et al., 2012).

Mindfulness has also proven to be specifically effective in reducing teacher stress (Roeser et al., 2013). In fact, as of late, school-based, mindfulness intervention programs have become a predominant means of mitigating stress among teachers. Hwang et al. (2017) conducted a systematic review of mindfulness interventions for in-service teachers; within the review, Hwang et al. (2017) examined sixteen mindfulness group

interventions implemented with in-service teachers from the years 2010 to 2016. The review demonstrated the plethora of benefits mindfulness programs provide for teachers, including: reductions in self-perceived stress, burnout, and psychological distress, increased resilience and coping among teachers, and increased teacher performance (Hwang et al., 2017). For example, in one of the study's included in the review, the researchers conducted a mindfulness program aimed at reducing stress for a sample of 113 elementary and secondary school teachers. The researchers found that the mindfulness intervention program increased teachers' levels of mindfulness, self-compassion, focused attention, and decreased their levels of stress and burnout (Roeser et al., 2013). In another study, not included in Hwang et al.'s (2017) review, Reiser and McCarthy (2017) developed the Stress Prevention and Mindfulness Intervention (SPAM): an eight-week, mindfulness group intervention for teacher stress. Teachers who participated in the study reported to experience a number of benefits, including an increased sense of community with colleagues and students, and an improvement in job satisfaction (Reiser & McCarthy, 2017).

Mindfulness and trauma-informed care. Beyond the fact that mindfulness techniques appear to be effective in mitigating teacher stress, they also appear to be particularly suitable for integration within a trauma-informed care approach. Bessel van der Kolk (2014) puts it best when he explains that "mindfulness not only makes it possible to survey our internal landscape with compassion and curiosity, but can also actively steer us in the right direction for self-care (p. 285). Given that mindfulness calls upon individuals to draw their attention, non-judgmentally, to the current moment, the practice allows for individuals to confront, rather than avoid, difficult thoughts and

emotions with a heightened sense of tolerance and ease (Vujanovic, Niles, Pietrefesa, Schmertz, & Potter, 2011).

Additionally, mindfulness allows for individuals to better comprehend the transitory nature of their feelings, and in turn, develop increased control over emotional responses and reactions (van der Kolk, 2014). The practice of mindfulness is associated with increased levels of emotional self-regulation – an important tool for coping with trauma-related stress among students (Hill & Updegraff, 2012). By practicing mindfulness, teachers are able to develop an increased sensitivity or awareness around their own emotions, and are able to regulate their emotional reactions towards students when they are misbehaving or acting out (Roeser, Skinner, Beers, & Jennings, 2012). Thus, mindfulness enables teachers to better self-regulate their emotions in the face of stressful conditions, or trauma-related stress situations (Hill & Updegraff, 2012; van der Kolk, 2014). Further, mindfulness practice enables teachers to be more attuned with students' socioemotional needs, and develop heightened compassion and kindness towards students and themselves (Hwang et al., 2017). This is appears to be particularly crucial when it comes to teachers developing increased empathy towards students' trauma histories, and the behavioral manifestations that arise as a result of the trauma-related stress response (e.g., student misbehavior).

Some researchers have implemented school-based programs combining elements of mindfulness and trauma-informed care; however, such programs have only been developed for students. For example, Mendelson et al. (2015) implemented the RAP Club intervention: a trauma-informed, 12-session group intervention specifically designed for middle school students. The primary focus of the RAP Club was to equip students with

skills related to effective decision making and emotional regulation (Mendelson et al., 2015). Mendelson et al. (2015) incorporated elements of psychoeducation, cognitive behavioral therapy (CBT), and mindfulness into the intervention program, and found that students who participated in the intervention improved in academic competence, social competence, authority acceptance, and dysregulation based on teacher-rated data.

Proposed Research Study

Purpose of Study

The purpose of this study is to evaluate the effectiveness of the Ripple Project, a trauma-informed mindfulness group intervention program for teachers. The intention of the Ripple Project is to equip teachers with effective resources so that they are better able to cope with significant demands related to teacher stress. The Ripple Project seeks to take on a trauma-informed care approach; the intervention curriculum places emphasis on the impact of trauma-related stress among students, and how this demand plays a crucial role in teachers' stress experiences. Through participating in this group intervention program, teachers will develop coping and self-care strategies rooted in mindfulness, and receive psychoeducation around trauma-related stress and its various manifestations among students and teachers.

As noted within the introduction, the Ripple Project was developed in conjunction with the Vida Clinic, a school-based mental health clinic currently offering trauma-informed mental health care services to schools within AISD. The Vida Clinic's approach to providing trauma-informed health care services to schools can be characterized by a whole school, triad structure: parents, students, and staff (including teachers) must be supported through trauma-informed care services in order for a school system to function

effectively. Thus, the Ripple Project curriculum will be embedded within a series of trauma-informed care initiatives currently being delivered at schools participating in this study, and the purpose of the Ripple Project is to specifically support teachers, a crucial pillar of the triad framework. Further, the Ripple Project maintains three primary, inter-connected goals: (1) to reduce teacher stress, (2) to instill mindfulness skills as a means of self-care and coping with stress (both trauma-related and not), and (3) to improve teachers' understanding of trauma-related stress among students. The following research questions highlight these goals.

Research Questions

Research Question 1: Are there significant group differences between the intervention group and waitlist control group, from pretest to posttest, on levels of perceived stress, and will these group differences be maintained by the intervention group at a 30-day follow up?

Research Question 2: Are there significant group differences between the intervention group and waitlist control group, from pretest to posttest, on levels of mindfulness, and will these group differences be maintained by the intervention group at a 30-day follow up?

Research Question 3: Are there significant group differences between the intervention group and waitlist control group, from pretest to posttest, on levels of teachers' understanding of trauma-related stress among students, and will these group differences be maintained by the intervention group at a 30-day follow up?

Method

This study will employ a randomized, wait-list control design to determine the

efficacy of the Ripple Project, a trauma-informed mindfulness group intervention program designed for teachers. As demonstrated in the research questions above, the effectiveness of the intervention will be determined among the following three dimensions: perceived stress, mindfulness, and understanding of trauma-related stress among students. Details related to participation, study protocol, data collection, and intervention structure will be described below.

Participants. All teachers from five different schools in AISD public schools will be eligible to participate within the study. Participant recruitment will be coordinated by a school psychologist who oversees the mental health care within the five schools, and who is working in close conjunction with the primary investigator of the study. The school psychologist will recruit teachers through meetings and announcements two months prior to the start of the study. Teachers will be informed about an opportunity to participate in a three-session mindfulness program related to teacher stress. The goal will be to recruit 30 teachers per school, with two group interventions being implemented per school (intervention condition, n=15, wait-list control condition n=15). Another goal will be to recruit teachers who demonstrate diverse demographic information, as well as a diverse amount of teaching experience (e.g., first year teachers as well as teachers who have been teaching for 10+ years). If goals are met, the total sample size of the study will amount to 150.

Schools. The Ripple Project will be implemented within five schools within AISD. Some key demographic variables of the schools involved include: 81.8- 94.9% of students identify as Hispanic, 75.5 – 94.9% qualify as economically disadvantaged, and 67.4 – 84.9% are English language learners. Further, these schools are currently receiving

care from the Vida Clinic, a school-based mental health clinic that specializes in trauma-informed care, and seeks to provide mental health services for students, parents, and teachers. The Ripple Project is therefore intended to be a supplementary initiative to the Vida Clinic's trauma-informed care services already being implemented within the schools involved in this study. The school psychologist who oversees the mental healthcare within these five schools is the Vida Clinic director. Thus, her input weighed heavily in the formation of the Ripple Project's structure and content.

Facilitation. The intervention will be delivered within five different schools, by five different facilitators. All five of the facilitators are doctoral students in the Educational Psychology department at University of Texas at Austin and have had previous experience with mindfulness, teaching, and/or group work. Facilitators of the group will be supervised by two licensed psychologists, including the school psychologist who serves as the Vida Clinic director, as well as a counseling psychologist who specializes in research about teacher stress and group work. Facilitation of the groups will take place during the teachers' lunch hour. Teachers will be served lunch at the start of each session as an incentive to regularly attend to the group. Additionally, teachers will receive professional development credits for participating. The sessions will take place on campus inside of a classroom.

Intervention

Purpose and Goals. As mentioned earlier, the goals of the intervention are three-fold: (1) reduce teacher stress; (2) instill mindfulness skills as a means of self-care and coping; and (3) improve teachers' understanding of trauma-related stress among students. By providing teachers with psychoeducation around trauma-related stress, teachers will

learn to draw links between student misbehavior and student trauma, and how to identify manifestations of trauma-related stress within their personal and professional lives. By equipping teachers with mindfulness-based skills, they will likely be able to more easily cope with trauma-related stress and teacher stress overall. Further, by providing teachers a space for support, they will be able to process their stressful experiences and connect with one another over the shared stress experience.

Structure. The intervention will involve three weekly 60-minute sessions across the duration of three weeks. The choice to implement a short-term, three week long intervention, rather than one of longer duration was based on consultation with the school psychologist and Vida Clinic director who oversees the mental healthcare of the five schools. By creating a shorter intervention program structure, teachers' attendance to all three sessions is likely to be more consistent, and thus attrition rates are more likely to remain low. This conclusion is based on previous data indicating that longer duration interventions lead to higher rates of attrition (see Reiser & Mccarthy, 2017). Further, implementing a three-week intervention structure demonstrated more feasibility, given the participating schools' hectic and dynamic academic calendars. In terms of the session structures, specific descriptions of session themes and content are outlined below.

Session 1: Building Rapport and Introducing Mindfulness and Trauma. The first session will begin with a facilitator introduction; the facilitator will identify their background and sets of expertise, and check in with teachers about whether they may have any specific questions, or wish to know more. The facilitator will communicate a deep concern for the teachers' unique needs, and will encourage that the group be conceptualized as an open, collaborative space. Teachers will then be asked to engage in

a round robin exercise, where they will be asked introduce themselves, address their goals in participating in the group intervention program, and overview one stressful event that occurred in the last month. Once the round robin is complete, the facilitator will venture into a brief, verbal introduction of the concept of trauma and how it relates to teachers' stress experiences; the facilitator will also briefly overview mindfulness, and how it is an adaptive self-care skill for dealing with teacher stress in general, as well as the concept of trauma-related stress among students. Teachers will receive a handout outlining the core components of mindfulness. The facilitator will check in with teachers about their opinions on utilizing mindfulness as a self-care mechanism. The session will end with a progressive muscle relaxation guided meditation as a means of crystallizing the concept of mindfulness.

Session 2: Learning More about Trauma-Related Stress. The second session will start with a very short, mindfulness breathing exercise as a means of grounding the teachers. After completing the breathing exercise, teachers will be shown a short video exploring the topic of trauma-related stress among students, and how this trauma ultimately impacts teachers' stress experiences. Teachers will be asked to process the video and share their thoughts on how messages presented in the video relate to their personal experiences. The facilitator will then introduce the concept of trauma-related stress by passing out a handout that will include information regarding: the definition of trauma, statistics depicting the prevalence of trauma among students in schools, manifestations of trauma among students and teachers, and the concept of vicarious traumaa among teachers. Although the entire handout will be reviewed, the majority of focus will be put onto manifestations of trauma-related stress among students and

teachers. The facilitator will hone in on these concepts, and explicitly draw a connection between these concepts and teacher stress.

Teachers will then be asked to fill in two worksheets. The first worksheet will involve a symptom checklist, that will ask teachers to check off symptoms related to teacher stress and vicarious trauma that they appear to experience in everyday life. The second worksheet will involve teachers identifying more details related to their stress experience, including when they are most prone to experiencing stress and which parts of their body tend to carry the majority of stress. After completing these worksheets, the teachers will be asked to share their thoughts, as well as what may have surprised them in the process of completing the worksheets.

Then, the facilitator will segue the discussion back into mindfulness, and will review ways in which mindfulness can be a positive resource to combat and prevent symptoms associated with trauma-related and workplace stress. Primarily, the facilitator will discuss the importance of utilizing mindfulness as a means of regulating emotions in the face of dealing with these issues. Teachers will be invited to discuss their thoughts around utilizing mindfulness as a strategy, and will be encouraged to identify potential strengths and challenges they anticipate to experience. The session will end with a guided alternate nostril breathing exercise.

Session 3: Utilizing Mindfulness Strategies To Cope With Trauma and Stress. The final session will be dedicated to drawing a clear connection between mindfulness and trauma, and will hone in on the concept of self-care as a means of managing stress. Further, the focus of the session will be to review mindfulness strategies that can be utilized as mechanisms of self-care within the future. The facilitator will pass out a

handout involving various mindfulness activities and resources specifically helpful for teacher stress or vicarious trauma symptoms. While the facilitator will encourage the teachers to utilize the wide variety of techniques and resources listed on the handout, the facilitator will also specifically hone in on two of the techniques listed. The facilitator will facilitate these two activities with the group. The first actvitiy will be a body scan exercise, which the facilitator will direct for five minutes. The facilitator will then segue into the second exercise, an emotional scan exercise. This guided meditation will involve teachers focusing their attention on certain emotions, and then the certain areas of their bodies where the emotions arise. Teachers will be prompted to attach a color, shape, or sensation to each emotion, and once the emotion has been fully visualized, to let go of it. After these exercises come to a close, the facilitator will prompt a discussion among the teachers, asking them to reflect on the process of engaging in these exercises, and if they intend to utilize these strategies in the future. The session will end with closing thoughts about the overall group experience. Teachers will be encouraged to reflect on major takeaways they derived from their time spent participating in the group. Last, the facilitator will inquire about how lessons from the group can be integrated into life moving forward.

Study Protocol and Data Collection. Prior to implementing the study, the primary investigator will seek approval from the Institutional Review Board at the University of Texas at Austin. Consent for participation will be obtained from teachers who volunteer to participate in the study by the school psychologist working in conjunction with the primary investigator. Teachers will then be randomized into an intervention group or a wait-list control group using an Excel number generator. Teachers in the intervention

group will participate in the three-week intervention first, and then, one week after the conclusion of the intervention group's participation, teachers assigned to the wait-list control group will be offered to participate in the same intervention. Teachers in both the intervention and wait-list control groups will complete baseline measures one week prior to the start of the initial intervention. Within one week following completion of the initial intervention, teachers in both groups will complete a survey consisting of the same measures. Thirty days following completion of the initial intervention, teachers within the intervention group will be asked to complete a follow up survey, again consisting of the same measures delivered at pre- and posttest. All measures will be delivered to teachers online through Qualtrics, a safe-to-use and protected survey website. Measures that will be used in the study are outlined below.

Measures

Demographics Questionnaire. A demographic information questionnaire will assess participants' age, gender, race/ethnicity, and number of years teaching. See Appendix A for this measure.

Perceived Stress Scale (PSS). Teachers' levels of stress will be measured by the Perceived Stress Scale (PSS), a 10-item questionnaire (Cohen, Kamarck, & Mermelstein, 1983). Each item on the PSS is scored on a 5-point Likert scale ranging from 0 (*never*) to 4 (*very often*). Items on the PSS seek to capture to what extent respondents' perceived the previous month as stressful, unpredictable, uncontrollable, and overloaded. Higher scores on the PSS demonstrate increased levels of perceived stress within respondents. The PSS has demonstrated adequate reliability, validity, and sensitivity to change (Hewitt et al., 1992). Internal reliability for the PSS was found to have a coefficient α of 0.78 (Cohen et

al., 1982). The PSS has been utilized across multiple studies as a means of examining teacher stress (Beshai, McAlpine, Weare, & Kuyken, 2015; Yu, Wang, & Zhai, 2015; Reis, Hino, & Rodriguez-Añez, 2010) Further, Lee (2012) conducted a review of the psychometric evidence of the PSS and found that teachers were the second most common population the measure was used to examine. See Appendix B for this measure.

Classroom Appraisal of Resources and Demands (CARD). Teachers' levels of stress will also be measured using the Classroom Appraisal of Resources and Demands (CARD), which measures perceived stress, specifically in teachers, by examining the difference between two distinct constructs: demands and resources. Lambert, McCarthy, O'Donnell, and Wang (2009) developed CARD as a means of operationalizing the Transactional Model of stress. The measure classifies teachers into three groups: (1) the Demands group, made up of teachers who appraise their classroom demands as exceeding their classroom resources, (2) the Balanced group, comprised of teachers who appraise their demands and resources as equivalent, and (3) the Resourced group, consisting of teachers who appraise their resources as surpassing their demands. The CARD, A 65-item questionnaire, seeks to measure teachers' appraisals of classroom demands, as well as teachers appraisals of school resources. The measure contains two subscales reflecting upon these two constructs. The Demands subscale contains 35 items and asks respondents to rate the severity of perceived classroom demands based on a 5-point Likert scale ranging from 1 (*not demanding*) to 5 (*extremely demanding*). The resources subscale contains 30 items and asks respondents to rate the helpfulness of classroom resources, also on a 5-point Likert scale ranging from 1 (*very unhelpful*) to 5 (*very helpful*). Respondents receive a "Demand" score and a "Resource" score, as well as

an Appraisal Index score, which reflects on the calculated difference between the "Demand" and "Resource" scores. This Appraisal Index score captures the respondent's overall appraisal of whether they possess sufficient resources to meet given demands.

Lambert et al. (2007) found sample-specific reliabilities for both the Demands scale scores and Resources scale scores (Demands, a = .92; Resources, a = .95). Further, the CARD has been used in multiple studies with teachers across varying grade levels and has consistently demonstrated sample-specific reliability as well as validity evidence (McCarthy et al., 2014). In a review of 18 studies using the CARD, McCarthy et al. (2014) found that teachers categorized as belonging within the Demands group were found to experience lower job satisfaction, higher burnout rates, and reduced commitment to their jobs as teachers. See Appendix C for this measure.

Five Facet Mindfulness Questionnaire (FFMQ). Teachers' levels of mindfulness will be assessed via the Five Facet Mindfulness Questionnaire (FFMQ). The FFMQ seeks to capture all five facets of mindfulness in order to comprehensively measure the construct (Baer, Smith, Hopkins, Krietemeyer, & Toney, 2006). The questionnaire, developed by Baer et al. (2006), contains 39-items with each rated on a 5-point Likert scale ranging from 1 (*never or very rarely true*), to 5 (*very often or always true*). Higher scores on the FFMQ demonstrate increased mindfulness among respondents. The five facets of mindfulness assessed within the FFMQ include nonreactivity to internal experiences (Nonreact); observation and attention towards thoughts (Observe), feelings, sensations and perceptions; acting with awareness (Actaware); the ability to describe and label stimuli with words (Describe); and limited judgment of experience (Nonjudge; Baer et al., 2006).

The FFMQ demonstrates adequate to excellent internal reliability among the five subscales, with Cronbach's αs ranging between .75 and .91 (Baer et al., 2006). Baer et al. (2006) also found that the FFMQ demonstrates adequate predictive and construct validity, while Goldberg, Wielgosz, Dahl, and Schuyler (2016), found that the FFMQ demonstrates adequate convergent validity with the Psychological Well-Being Scale (PWB; *r*s = .23-.50, $p < .05$) and the Symptom Checklist (SCL-90R; $r = -.23$, $p = .008$). The PWB and SCL-90R assess psychological well-being and psychological symptoms, respectively, and reflect on two constructs proven to be theoretically linked to the construct of mindfulness (Goldberg et al., 2016). As of now, information specifically regarding the test-retest reliability of the FFMQ is not available (Barnhoffer, Duggan, & Griffith, 2011). However, the FFMQ was developed based off of items present within other mindfulness questionnaires (Kentucky Inventory of Mindfulness; Baer et al., 2004 and Skills and Mindful Attention Awareness Scale; Brown & Ryan, 2003), which have shown adequate test-retest reliability (Barnhoffer et al., 2011).

The FFMQ has been used to measure mindfulness in the context of teacher stress within multiple studies (Goldberg et al., 2016; Reiser et al., 2016; Jennings, 2015). Further, Hwang et al. (2017) conducted a systematic review of studies implementing mindfulness interventions for in-service teachers; they found that the FFMQ was used within the majority of the quantitative studies included within the review. See Appendix D for this measure.

Attitudes Related to Trauma-Informed Care Scale (ARTIC-35 Education Version). Teachers' abilities to better understand trauma-related stress among students will be measured using the Attitudes Related to Trauma-Informed Care (ARTIC) Scale (ARTIC-

35 Education version). The scale, developed by Baker et al. (2015), consists of 35-items with each rated on a 7-point bipolar Likert scale. The scale is made up of eight subscales which capture attitudes related to (1) underlying causes of problem behaviors and symptoms; (2) trauma impact; (3) responses related to problem behaviors and symptoms; (4) behavior on-the-job; (5) self-efficacy within the workplace; (6) reactions to work; (7) personal support of trauma-informed care; and (8) system-wide support for trauma-informed care (Baker et al., 2015). The version proposed for use within this study was specifically developed for use within schools. The ARTIC was evaluated among a sample of 760 service providers, 22% of which worked in schools (Baker et al., 2015). The ARTIC-35 demonstrated excellent internal consistency reliability ($\alpha = .91$; Baker et al., 2015). The ARTIC-35 also demonstrated strong test-retest correlations and temporal consistency with a correlation of .84 at $\leq$120 days (Baker et al., 2015). See Appendix E for this measure.

Analyses and Expected Results

Preliminary analyses. To determine the number of participants needed for the study, a two-step process was enacted. First, previous studies were reviewed to establish an appropriate effect size; mindfulness groups with teachers demonstrated effect sizes ranging from small to medium (Hwang et al., 2017). Then, adequacy of the sample size was determined through a power analysis conducted on G*Power 3.1.9.2. The analysis indicated that for a medium effect size, a minimum sample of 128 would provide 80% power to detect a significant effect.

For the proposed study, data analyses will be conducted using SPSS 25. Any existing missing data will be accounted for using listwise deletion. Thus, participants who

demonstrate missing data will be removed from analysis. Given that the proposed study will involve 150 participants, and only 128 participants are needed to provide 80% power, the listwise deletion method should not reduce the power of the study. Additionally, Graham (2009) indicates that if the missing data leads to only a small portion of cases lost, potential negative implications of listwise deletion (i.e., loss of power or presence of bias) will not be likely to occur.

To determine whether participants are adequately randomized and groups are comparable at pretest, the study will utilize analysis of variance (ANOVA) procedures to examine the comparability of groups on baseline demographic information. ANOVA will also be utilized to determine if there are any significant pre-existing differences between the intervention and waitlist control group on other pretest measures. In the case that significant differences are found across groups, these differences will be accounted for by adjusting demographic or other pretest measure variables as covariates within the regression analysis.

Analyses. To examine changes in study outcomes from pretest, to posttest, to 30-day follow up, matched pairs *t* tests will be utilized to examine individual changes in the intervention group. Then, to determine if the intervention group demonstrated higher improvement on stress, mindfulness, and understanding of trauma-related stress than the waitlist control group, outcomes will be examined through 2 (Group: Intervention vs. Waitlist Control) x 2 (Time: Pretest vs. Posttest) repeated measures ANOVA. Effect sizes for each outcome within each group will be calculated using Cohen's *d*.

Hypotheses and expected results. For pretest measures and preliminary analyses, no significant differences between the intervention and waitlist control groups

are predicted to emerge on any of the demographic or other pretest outcome measures (ps < .05). However, in the case that significant differences were to emerge with those specific demographic or pretest measure variables, they would be used as covariates within the regression analysis, and thus this study would utilize analysis of covariance (ANCOVA) procedures rather than repeated measures ANOVA procedures when examining outcome differences among the two groups from pre to posttest.

For analyses based on implementation of the intervention, when examining the matched pairs *t* tests analyses, the intervention group is expected to demonstrate significant improvement in perceived stress, mindfulness, and understanding of trauma-related stress among students from pre to posttest (all ps < .05). Such improvement among intervention group participants is predicted to be maintained following the intervention; thus 30-day follow up assessment scores will demonstrate similar means scores to intervention participants' posttest means scores when examining the matched paired *t* test analyses. Expected results for matched-pairs *t* tests analyses are further demonstrated within Table 1 below.

Table 1
Expected Results: Pretest, Posttest, and 30-Day Follow Up Scores for The Ripple Project Group Analyzed with Matched-Pairs t Tests

	Pretest		Posttest		30-Day Follow Up
Outcome	*M(SD)*		*M(SD)*		*M(SD)*
Perceived Stress	x(y)	>	x(y)*	=	x(y)*
Appraisal Index	x(y)	>	x(y)*	=	x(y)*
Mindfulness	x(y)	<	x(y)*	=	x(y)*
Trauma Understanding	x(y)	<	x(y)*	=	x(y)*

Note: *M* = mean; SD = standard deviation; *t* test significant at *p < .05.

When examining the series of 2 x 2 repeated measures ANOVA, the intervention group is expected to demonstrate significant improvement on perceived stress, mindfulness, and understanding of trauma-related stress among students in comparison to the waitlist control group. Cohen's *d* will indicate a medium to large effect size for each of the outcomes. Expected results for the ANOVA are further detailed below within Table 2

Table 2
Expected Results: Pretest and Posttest Mean Scores Analyzed with 2 (Group) x 2 (Time) Repeated Measures Analyses of Variance, and Effect Sizes Using Cohen's d

	Ripple Project Group		Control Group			
	Pretest	Posttest	Pretest	Posttest	F	Effect size
Outcome	M(SD)	M(SD)	M(SD)	M(SD)		Cohen's *d*
Perceived Stress	x(y) >	x(y)	x(y) ≤	x(y)	$p < 0.05$	≥ 0.5
Appraisal Index	x(y) >	x(y)	x(y) ≤	x(y)	$p < 0.05$	≥ 0.5
Mindfulness	x(y) <	x(y)	x(y) ≥	x(y)	$p < 0.05$	≥ 0.5
Trauma Understanding	x(y) <	x(y)	x(y) ≥	x(y)	$p < 0.05$	≥ 0.5

Note: M = mean; SD = standard deviation; *F* test significant at $p < 0.05$; Cohen's *d* score of ≥ 0.5 demonstrates at least a medium effect size.

Expected outcomes will be expanded upon below, in conjunction with the research hypotheses.

Hypothesis one. The first hypothesis, based on research question one, is that teachers that participate in intervention treatment group will show a significant decrease in perceived stress upon completion of the intervention, in comparison to teachers within the same schools who participated in the waitlist control group. Teachers are predicted to maintain a decrease in perceived stress at 30 days following the intervention. When examining the matched paired samples *t* test analyses, teachers within the treatment group will be expected to demonstrate a significant reduction in their PSS mean scores from pre- to posttest ($p < .05$). Additionally, teachers within the treatment group will be expected to demonstrate a decrease in their CARD appraisal index mean score from pre-

to posttest ($p < .05$). Both PSS and CARD appraisal index mean scores will not significantly differ from posttest to 30-day follow up, implying that the decrease in perceived stress will be maintained 30 days following the completion of the intervention program. When examining outcomes on the repeated measures ANOVA, teachers are anticipated to demonstrate significant reductions in their PSS means scores, and significant decreases in their CARD appraisal index mean scores from pre- to posttest ($p < .05$) in comparison to teachers in the waitlist control group. Further, Cohen's *d* scores will indicate a medium to large effect size for each of these outcomes. Thus, based on both the matched paired samples *t* test analyses and repeated measures ANOVA, teachers who participate in the intervention group will demonstrate decreased perceived stress based on two factors: (1) decreased experience of perceived stress, and (2) an appraisal of increased possession of resources versus demands (as demonstrated by a negative appraisal index score).

Hypothesis two. The second hypothesis, based on research question two is that teachers that participate in the intervention treatment group will demonstrate a significant increase in mindfulness upon completion of the intervention, in comparison to teachers within the same schools who participated in the waitlist control group. Teachers will maintain increased levels of mindfulness at 30 days following the intervention. Based on expected results for the matched paired *t* tests and the repeated measures ANOVA, teachers who participate in the intervention treatment group will demonstrate a significant increase in their FFMQ mean score ($p < .05$) from pre- to posttest in comparison to teachers who participated in the waitlist control group. In regards to the expected results associated with the repeated measures ANOVA, a large to medium

effect size will be indicated by the Cohen's *d* score. Further, matched paired *t* tests analyses will demonstrate that FFMQ mean scores will not significantly differ from posttest to 30-day follow up.

Hypothesis three. The third and final hypothesis, based on research question three, is that teachers that participate in the intervention treatment group will demonstrate a significant improvement in their ability to understand trauma-related stress among students, in comparison to teachers who participate in the waitlist control group. Teachers will maintain an improved ability to understand trauma-related stress among students at 30-day follow up. When examining the matched paired samples *t* test analyses, teachers within the treatment group will be expected to demonstrate a significant increase in their ARTIC means scores from pre- to posttest ($p < .05$). ARTIC scores will not significantly differ from posttest to 30-day follow up, and thus improvement in understanding trauma-related stress among students will be maintained. When examining results associated with the repeated measures ANOVA, teachers within the intervention group are expected to demonstrate a significant increase in their ARTIC scores in comparison to teachers in the waitlist control group. Cohen's *d* scores will indicate a medium to large effect size for each of these outcomes. Thus, based on both the matched paired samples *t* test analyses and repeated measures ANOVA, teachers who participate in the intervention group will demonstrate an increased ability to understand trauma-related stress among students based on an increased understanding of: trauma-informed care, trauma as it impacts students, trauma-related stress among students as it impacts teachers' stress experiences.

Additional analyses. One issue that is expected to occur when conducting the above mentioned analyses is the violation of the assumption of the independence of

observations. Dependence of observations seems to be an inherent issue present within studies examining group intervention work; when individuals participate in group interventions together, it is likely that clustering of data will occur, and group members will influence one another's responses (McCarthy, Whittaker, Boyle, & Eyal, 2017). As indicated by McCarthy et al. (2017), "the assumption of independence is necessary in order to attribute group differences to systematic influences (e.g., intervention) as opposed to the similarities of participant responses within groups and the differences of participant responses across groups" (p. 7). Additionally, studies such as this one, which utilize ANOVA and *t* tests to analyze collected data, are susceptible to violating the assumption of independence (McCarthy et al., 2017).

To address this expected challenge, McCarthy et al. (2017) recommends that researchers report the intraclass correlation (ICC) coefficient. Thus, for this study, the ICC coefficient will be calculated to quantify the degree of dependence present within each of the groups. The ICC coefficient will be calculated by running a one-way ANOVA. Within this one-way ANOVA, Mean Square Between (MS_B) and Mean Square Within (MS_W) estimates will be obtained, and the individual group (cluster) will be used as the independent variable. An ICC value closer to 0 would imply that the independence of observations assumption was not violated.

Discussion

Summary. Overall, the proposed study attempts to effectively deliver a trauma-informed mindfulness intervention for teachers dealing with stress. Based on existing data and the current literature landscape, the implementation of this intervention is crucial

given the staggeringly high rates of both teacher stress, and trauma-related stress among students today. The proposed intervention structure contains roots in various theoretical frameworks, including Lazarus and Folkman's (1987) Transactional Theory, mindfulness, and trauma-informed care. Its effectiveness will be measured through the means of a randomized wait-list control design, and its outcomes will be critically examined based on the considerations outlined below.

Limitations. The proposed study presents multiple limitations, some of which are due to inherent factors associated with conducting a group intervention program. First, the study proposes to solely rely on self-report measures as a means of capturing pre- to posttest changes among teachers who participate in the intervention program. Although self-report measures do offer the advantage of being well established in terms of reliability and validity, they appear to limit the depth of information potentially learned from group interventions (McCarthy et al., 2017). In other words, group interventions offer rich insight, and by triangulating these types of studies with other measures, such as behavioral observations, qualitative interviews, or physiological measures, more data can be extracted (McCarthy et al., 2017).

Second, beyond relying on self-report measures, the proposed study relies on the consistent participation of teachers. If issues associated with attrition occur to a higher degree than anticipated, power will be lost and the study loses merit in terms of validity. Although incentives will be offered to teachers (i.e., professional development credit and access to food, free of cost) so that they consistently attend the three sessions, it is still possible that teachers will choose not to attend, given the very stressful and busy nature of their jobs.

Third, the proposed intervention program seeks to impart a great deal of information in a rather short period of time. The choice to create an intervention that takes place across three sessions, rather than six or eight, was based in concerns and related to feasibility and attrition, as detailed above. However, it is possible that such a short number of sessions could ultimately limit the effectiveness of the intervention, or inhibit the intervention's primary goals from being achieved.

Fourth, the study seeks to determine if improvements examined within the intervention group will be maintained at a 30-day follow up period. Although it appears valuable to assess whether effects of the intervention can be sustained, it is important to recognize that teachers' semesters are naturally characterized by highs and lows of stressful periods of time. Thus, it is possible that the 30-day follow up measure will indicate that participating teachers' levels of stress have increased due to the viable chance of the follow up test being implemented during a period of standardized testing, or midterms for students. Further, because of the constricted timeline of an academic semester, implementing follow up surveys at 60, or 90 days following the intervention, could lead to higher attrition in follow up data due to teachers leaving for summer break. Similarly, seeking to implement a follow up measure one year after completion of the study would also likely lead to high attrition of data, due to the rate at which teacher turnover seems to be occurring. Thus, the proposed study is limited in its ability to capture rich follow up data regarding the long-term effects of the intervention program.

Future directions. Following the initial implementation of the study, the limitations mentioned above will likely be re-examined. If self-report measures offer limited data, high attrition occurs, or the three-week time span appears to be less effective

than anticipated, it is likely that these factors will be considered when altering the intervention in the second round of implementation.

In addition to these potential alterations, another critical consideration in future implementation includes the integration of multicultural concepts to the intervention structure. Beyond the intervention proposing to take a trauma-informed approach, the intervention would perhaps further be strengthened if it were to consider participants' intersecting identities within each of the groups, and how such identities may influence the trauma experience. This element could be incorporated within the intervention in a variety of ways, ranging from one activity that encompasses identity exploration, to an entire session asking participants to reflect on how factors related to their identity backgrounds may impact their trauma and stress experiences.

Beyond considering alterations to the intervention as a means of strengthening its effectiveness, it will also be worth considering ways of measuring how this intervention's effects will trickle down to students, and positively impact their experience in schools. Down the road, in secondary or tertiary implementation of the proposed intervention, it could be useful to collect data associated with trauma-related stress and self-regulation from students, in addition to teachers.

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APPENDICES

Appendix A
Demographics Questionnaire

1) Which of the following captures your current age?
    a. 18-25
    b. 25-35
    c. 35-45
    d. 45-55
    e. 55-65
    f. 65+

2) How do you typically describe your gender identity?
    a. Male
    b. Female
    c. Transgender
    d. Other, please specify:

3) How would you describe your race and/or ethnicity?
    a. Black/African American
    b. Asian
    c. Latinx/Hispanic
    d. North African/Middle Eastern/Arab American
    e. Caucasian/European American
    f. Native American

g. Pacific Islander
h. Other, please specify:
i. Prefer not to say

4) How many years have you been teaching?
   a. < 1
   b. 2 –5
   c. 6 - 10
   d. 11 - 15
   e. 16 +

Appendix B
Perceived Stress Scale

The questions in this scale ask you about your feelings and thoughts during the last month. In each case, you will be asked to indicate by circling how often you felt or thought a certain way.

Name _____ Date _____ Age _____ Gender (Circle): M F Other _____

0 = Never 1 = Almost Never 2 = Sometimes 3 = Fairly Often

1. In the last month, how often have you been upset because of something that happened unexpectedly?

2. In the last month, how often have you felt that you were unable to control the important things in your life?

3. In the last month, how often have you felt nervous and "stressed"?

4. In the last month, how often have you felt confident about your ability to handle your personal problems?

5. In the last month, how often have you felt that things were going your way?

6. In the last month, how often have you found that you could not cope with all the things

that you had to do?

7. In the last month, how often have you been able to control irritations in your life?

8. In the last month, how often have you felt that you were on top of things?

9. In the last month, how often have you been angered because of things that were outside of your control?

10. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?

Appendix C
Classroom Appraisal of Resources and Demands

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We are interested in learning about the demands of your classroom and teaching responsibilities and the resources you have to handle those demands. Your responses will be kept strictly confidential and anonymous. No information about your individual responses will be shared with anyone. We appreciate your time in completing this questionnaire.

1. How many years have you worked as a teacher? (Not including time spent as a student teacher, teaching assistant, or paraprofessional.)

_____

2. How many years have you worked at your current school?

_____

3. What is the highest degree you have completed? H.S. ___ Technical School ___ A.S. ___ BS/BA ___ M.S/M.A. ___ Doctoral ___
Please list your degree(s) including any majors, minors, specializations, etc.

4. In what fields were your degree(s)?

5. Are you currently working toward a degree?

6. If so, please describe field and degree:

7. What is your age?

_____

8. What is your gender?

_____

9. How do you identify racially or pan-ethnically?

Asian Am. ____ Black ____ Latino/Hispanic _____ Native Am. _____ White _____ Other _____ (please specify)

10. What type of school is your school? Public District School ____ Public Charter School ___ Private/Independent School ___

11. If you teach at a charter school, is your charter school independent (stand alone) or part of a charter management organization (i.e. there are several schools in your network)?
Independent Charter ____ Charter Mgmt. Organization ____

12. What grade(s) do you teach?

13. Are you a Special Education teacher (push-in, pull out, collaborative team teaching)?

14. How many students do you teach?

15. What subjects are you responsible for teaching (delivering the instruction) this year?
Reading ___ Writing ___ Math ___ Social Studies ___Science ___ Other (please list or specify)

16. What subjects are you responsible for planning (planning the actual instruction) this year?
Reading ___ Writing ___ Math ___ Social Studies ___Science ___ Other (please list or specify)

17. How many hours per week do you spend planning?

18. How many planning or preparation periods do you have per week?

19. How long are your preparation periods?

20. How many preparation periods per week are mandated for meetings or professional development?

21. What are your required at-school hours?
__:__ to __:__

22. What are your actual at-school hours?
__:__ to __:__

23. What type of schedule did your school use last year? (Secondary teachers only) 4x4 Block_____ A/B Day Block_____
Hybrid Block_____
Traditional_____ Other _____ Unsure_____

24. In each blank tell us how many courses at each of the following levels you taught (secondary teachers only):
Remediation_____ Regular_____ Honors/Advanced_____ AP/IB_____

25. Are there any other features of your teaching context that make it unique?

Tell us about the students in your classroom.

26. How many students have come from homes in which English is not the primary language?
_____

27. How many students are developmentally or academically behind most of the other students?
_____

28. How many students have Individualized Education Plans (I.E.P.s)?
_____

29. How many students have physical disabilities (ex: blindness, deafness, spina bifida)?

_____

30. How many students are gifted, talented, or academically advanced?

_____

31. How many students are homeless or transient?

_____

32. How many students have poor attendance?

_____

33. How many students are chronically late to school?

_____

34. How many students consistently engage in behaviors that are challenging for you?

_____

Using the scale below, rate how demanding you find each of the following.

1 = Not Demanding 2 3 = Somewhat Demanding 4 5 = Very Demanding N/A = Non Applicable						
35. Number of students in the classroom or number of students taught per day.	1	2	3	4	5	NA
36. Working with students from homes in which English is not the primary language.	1	2	3	4	5	NA
37. Working with students who are performing below grade level.	1	2	3	4	5	NA
38. Working with students who have Individualized Education Plans (IEPs).	1	2	3	4	5	NA
39. Working with students who have physical disabilities.	1	2	3	4	5	NA
40. Working with students who are gifted, talented, or academically advanced.	1	2	3	4	5	NA
41. Homeless or transient students.	1	2	3	4	5	NA
42. Students with poor attendance.	1	2	3	4	5	NA
43. Students who are chronically late.	1	2	3	4	5	NA
44. Working with students and families from diverse cultural backgrounds.	1	2	3	4	5	NA
45. Students with problematic behaviors (not following directions, disrupting class, etc.).	1	2	3	4	5	NA
46. Test preparation.	1	2	3	4	5	NA

47. Hours spent at work/hours spent beyond required working hours.	1	2	3	4	5	NA
48. Pace of daily schedule.	1	2	3	4	5	NA
49. Paperwork or administrative requirements (attendance records, report cards, data input).	1	2	3	4	5	NA
50. Administrative disruptions to the daily schedule (assemblies, fire drills, classroom phone)	1	2	3	4	5	NA
51. Lack of physical classroom space.	1	2	3	4	5	NA
52. Classroom environment conditions (heating, cooling, lighting, etc.).	1	2	3	4	5	NA
53. Lack of instructional resources (teacher guides, professional development workshops,coaches, mentor teachers, etc.)	1	2	3	4	5	NA
54. Lack of instructional materials (books, manipulatives, literacy centers, maps, science materials, etc.)	1	2	3	4	5	NA
55. Lack of instructional supplies (consumable materials such as pencils, paper, markers, chart paper, crayons, access to copy machines).	1	2	3	4	5	NA
56. Lack of classroom technology (computers, software, printers, SmartBoards, etc.).	1	2	3	4	5	NA
57. Outdated or worn out instructional materials.	1	2	3	4	5	NA
58. Using your own personal money for classroom resources, materials, or supplies.	1	2	3	4	5	NA
59. Time and effort spent working with protégé teachers (teachers you are mentoring).	1	2	3	4	5	NA
60. Meetings and/or trainings you are required to attend.	1	2	3	4	5	NA
61. Time spent performing non-teaching-related duties (monitoring bus, cleaning, lunch duty duty, etc.).	1	2	3	4	5	NA
62. Summative, formal, or school/state-mandated testing and assessments.	1	2	3	4	5	NA
63. Formative assessments (quizzes, portfolios, performance assessments, observation notes, other teacher ratings of student achievement).	1	2	3	4	5	NA
64. Grading student work.	1	2	3	4	5	NA
65. Planning (lesson, unit, or long term).	1	2	3	4	5	NA
66. Setting up the classroom and materials for instructional activities.	1	2	3	4	5	NA

67. Unexpected changes to your daily or weekly schedule.	1	2	3	4	5	NA
68. Changes to expectations of job performance.	1	2	3	4	5	NA
69. Working with a co-teacher (you share the same roster).	1	2	3	4	5	NA
70. Working with teaching assistants or paraprofessionals assigned to your classroom.	1	2	3	4	5	NA
71. Working with parents.	1	2	3	4	5	NA
72. Working with administrators.	1	2	3	4	5	NA
73. Working with other teachers.	1	2	3	4	5	NA
74. Students who use non-standard English common to their cultural group in assignments.	1	2	3	4	5	NA
75. Experiences in the classroom when your own racial, ethnic, or SES background is different than most of the students.	1	2	3	4	5	NA
76. Comments from students about your own cultural identity.	1	2	3	4	5	NA
77. Students who make ethnic and racial slurs or other derogatory comments about certain groups (i.e., "That's so gay," "Retarded," "Indian giver," etc.)	1	2	3	4	5	NA
78. Dealing with parents who feel their child may be taught, evaluated, or disciplined differently because of the child's race or ethnicity.	1	2	3	4	5	NA
79. Who question or make assumptions about your race or ethnicity during a phone conversation or other interaction.	1	2	3	4	5	NA
80. Responding to colleagues' disparaging remarks about your racial or ethnic group.	1	2	3	4	5	NA
81. Overall how demanding is your job on a daily basis this academic school year?	1	2	3	4	5	NA

Using the scale below, rate how helpful each of these resources is with classroom and teaching responsibilities.

1 = Not Helpful	2	3 = Somewhat Helpful	4	
5 = Very Helpful				

82. Aides, assistants, and/or paraprofessionals.	1	2	3	4	5	NA
83. Parent support (volunteers) in the classroom.	1	2	3	4	5	NA
84. Parent support of school learning activities (field trips, providing extra	1	2	3	4	5	NA
85. Parent support of learning activities at home (homework, enrichment	1	2	3	4	5	NA
86. Adult mentors from the community.	1	2	3	4	5	NA
87. Administrators at your school.	1	2	3	4	5	NA
88. Office staff at your school.	1	2	3	4	5	NA
89. Department Chairs or Grade Team Leaders	1	2	3	4	5	NA
90. Support personnel for students with Individualized Education Plans	1	2	3	4	5	NA
91. Support personnel for students with physical disabilities.	1	2	3	4	5	NA
92. Support personnel for gifted or talented students.	1	2	3	4	5	NA
93. Support personnel for students with limited English skills.	1	2	3	4	5	NA
94. Support personnel for working with students from diverse cultural	1	2	3	4	5	NA
95. Support personnel for students with problem behaviors.	1	2	3	4	5	NA
96. Support personnel for students performing below grade level.	1	2	3	4	5	NA
97. Support personnel for computers and instructional technology.	1	2	3	4	5	NA
98. Counselors, school psychologist, family services or social workers.	1	2	3	4	5	NA
99. Special area or enrichment teachers.	1	2	3	4	5	NA
100. Teachers who are your peers.	1	2	3	4	5	NA
101. Mentor teachers (teachers mentoring you).	1	2	3	4	5	NA
102. Staff development workshops and programming.	1	2	3	4	5	NA
103. Materials for students with learning disabilities.	1	2	3	4	5	NA
104. Materials for students with physical disabilities.	1	2	3	4	5	NA
105. Materials for gifted or talented students.	1	2	3	4	5	NA
106. Materials for students with limited English skills.	1	2	3	4	5	NA
107. Materials for students from diverse cultural backgrounds.	1	2	3	4	5	NA
108. Materials for students with problem behaviors.	1	2	3	4	5	NA
109. Materials for students performing below grade level.	1	2	3	4	5	NA
110 Instructional resources (teacher guides, professional development, coaches, mentors, etc.)	1	2	3	4	5	NA
111. Instructional materials (books, literacy centers, manipulatives, science materials, etc.).	1	2	3	4	5	NA

112. Instructional supplies (consumable materials such as pencils, paper, markers, chart paper pape crayons, access to copy machines, etc.).	1	2	3	4	5	NA
113. Planning or preparation periods.	1	2	3	4	5	NA
114. Amount of time you have in each planning or preparation period.	1	2	3	4	5	NA
115. Overall, how would you rate the resources available to help you with the demands of your classroom?	1	2	3	4	5	NA

Appendix D
Five Facet Mindfulness Questionnaire

Description: This instrument is based on a factor analytic study of five independently developed mindfulness questionnaires. The analysis yielded five factors that appear to represent elements of mindfulness as it is currently conceptualized. The five facets are observing, describing, acting with awareness, non-judging of inner experience, and non-reactivity to inner experience.

Please rate each of the following statements using the scale provided. Write the number in the blank that best describes your own opinion of what is generally true for you.

1	2	3	4	5
never or very rarely true	rarely true	sometimes true	often true	very often or always true

_____ 1. When I'm walking, I deliberately notice the sensations of my body moving.
_____ 2. I'm good at finding words to describe my feelings.
_____ 3. I criticize myself for having irrational or inappropriate emotions.
_____ 4. I perceive my feelings and emotions without having to react to them.
_____ 5. When I do things, my mind wanders off and I'm easily distracted.
_____ 6. When I take a shower or bath, I stay alert to the sensations of water on my body.
_____ 7. I can easily put my beliefs, opinions, and expectations into words.
_____ 8. I don't pay attention to what I'm doing because I'm daydreaming, worrying, or otherwise distracted.
_____ 9. I watch my feelings without getting lost in them.
_____ 10. I tell myself I shouldn't be feeling the way I'm feeling.
_____ 11. I notice how foods and drinks affect my thoughts, bodily sensations, and emotions.
_____ 12. It's hard for me to find the words to describe what I'm thinking.
_____ 13. I am easily distracted.
_____ 14. I believe some of my thoughts are abnormal or bad and I shouldn't think that way.
_____ 15. I pay attention to sensations, such as the wind in my hair or sun on my face.
_____ 16. I have trouble thinking of the right words to express how I feel about things
_____ 17. I make judgments about whether my thoughts are good or bad.
_____ 18. I find it difficult to stay focused on what's happening in the present.
_____ 19. When I have distressing thoughts or images, I "step back" and am aware of the thought or image without getting taken over by it.
_____ 20. I pay attention to sounds, such as clocks ticking, birds chirping, or cars passing.
_____ 21. In difficult situations, I can pause without immediately reacting.
_____ 22. When I have a sensation in my body, it's difficult for me to describe it because I can't find the right words.

_____ 23. It seems I am “running on automatic” without much awareness of what I’m doing.
_____24. When I have distressing thoughts or images, I feel calm soon after.
_____ 25. I tell myself that I shouldn’t be thinking the way I’m thinking.
_____ 26. I notice the smells and aromas of things.
_____ 27. Even when I’m feeling terribly upset, I can find a way to put it into words.
_____ 28. I rush through activities without being really attentive to them.
_____ 29. When I have distressing thoughts or images I am able just to notice them without reacting.
_____ 30. I think some of my emotions are bad or inappropriate and I shouldn’t feel them.
_____ 31. I notice visual elements in art or nature, such as colors, shapes, textures, or patterns of light and shadow.
_____ 32. My natural tendency is to put my experiences into words.
_____ 33. When I have distressing thoughts or images, I just notice them and let them go.
_____ 34. I do jobs or tasks automatically without being aware of what I’m doing.
_____ 35. When I have distressing thoughts or images, I judge myself as good or bad, depending what the thought/image is about.
_____ 36. I pay attention to how my emotions affect my thoughts and behavior.
_____ 37. I can usually describe how I feel at the moment in considerable detail.
_____ 38. I find myself doing things without paying attention.
_____ 39. I disapprove of myself when I have irrational ideas.

Appendix E
Attitudes Related to Trauma-Informed Care Scale

ARTIC | *Attitudes Related to Trauma-Informed Care Scale*
VERSION: ARTIC-35 EDUCATION

TRAUMATIC STRESS INSTITUTE

People who work in education, health care, human services, and related fields have a wide variety of beliefs about their students, their jobs, and themselves. The term "student" is interchangeable with "client," "person," "resident," "patient," or other terms to describe the person being served in a particular setting.

Trauma-informed care is an approach to engaging people with trauma histories in education, human services, and related fields that recognizes and acknowledges the impact of trauma on their lives.

INSTRUCTIONS

For each item, select the circle along the dimension between the two options that best represents your personal belief during the past two months at your job.

Sample

	1	2	3	4	5	6	7	
Ice cream is delicious	○	●	○	○	○	○	○	Ice cream is disgusting.

Note: *In this SAMPLE ITEM, the respondent is reporting that he/she believes that ice cream is much more delicious than disgusting.*

I believe that...

		1	2	3	4	5	6	7	
1	Students' learning and behavior problems are rooted in their behavioral or mental health condition.	○	○	○	○	○	○	○	Students' learning and behavior problems are rooted in their history of difficult life events.
2	Focusing on developing healthy, healing relationships is the best approach when working with people with trauma histories.	○	○	○	○	○	○	○	Rules and consequences are the best approach when working with people with trauma histories.
3	Being very upset is normal for many of the students I serve.	○	○	○	○	○	○	○	It reflects badly on me if my students are very upset.
4	I don't have what it takes to help my students.	○	○	○	○	○	○	○	I have what it takes to help my students.
5	It's best not to tell others if I have strong feelings about the work because they will think I am not cut out for this job.	○	○	○	○	○	○	○	It's best if I talk with others about my strong feelings about the work so I don't have to hold it alone.
6	The students were raised this way, so there's not much I can do about it now.	○	○	○	○	○	○	○	The students were raised this way, so they don't yet know how to do what I'm asking them to do.
7	Students need to experience real life consequences in order to function in the real world.	○	○	○	○	○	○	○	Students need to experience healing relationships in order to function in the real world.
8	If students say or do disrespectful things to me, it makes me look like a fool in front of others.	○	○	○	○	○	○	○	If students say or do disrespectful things to me, it doesn't reflect badly on me.
9	I have the skills to help my students.	○	○	○	○	○	○	○	I do not have the skills to help my students.
10	The best way to deal with feeling burnt out at work is to seek support.	○	○	○	○	○	○	○	The best way to deal with feeling burnt out at work is not to dwell on it and it will pass.
11	Many students just don't want to change or learn.	○	○	○	○	○	○	○	All students want to change or learn.

CONTINUED →

ARTIC | *Attitudes Related to Trauma-Informed Care Scale*
VERSION: ARTIC-35 EDUCATION

TRAUMATIC STRESS INSTITUTE

I believe that...

		1	2	3	4	5	6	7	
12	Students often are not yet able or ready to take responsibility for their actions. They need to be treated flexibly and as individuals.	○	○	○	○	○	○	○	Students need to be held accountable for their actions.
13	I realize that students may not be able to apologize to me after they act out.	○	○	○	○	○	○	○	If students don't apologize to me after they act out, I look like a fool in front of others.
14	Each day is uniquely stressful in this job.	○	○	○	○	○	○	○	Each day is new and interesting in this job.
15	The fact that I'm impacted by my work means that I care.	○	○	○	○	○	○	○	Sometimes I think I'm too sensitive to do this kind of work.
16	Students have had to learn how to trick or mislead others to get their needs met.	○	○	○	○	○	○	○	Students are manipulative so you need to always question what they say.
17	Helping a student feel safe and cared about is the best way to eliminate undesirable behaviors.	○	○	○	○	○	○	○	Administering punitive consequences is the best way to eliminate undesirable behaviors.
18	When I make mistakes with students, it is best to move on and pretend it didn't happen.	○	○	○	○	○	○	○	When I make mistakes with students, it is best to own up to my mistakes.
19	The ups and downs are part of the work so I don't take it personally.	○	○	○	○	○	○	○	The unpredictability and intensity of work makes me think I'm not fit for this job.
20	The most effective helpers find ways to toughen up – to screen out the pain – and not care so much about the work.	○	○	○	○	○	○	○	The most effective helpers allow themselves to be affected by the work – to feel and manage the pain – and to keep caring about the work.
21	Students could act better if they really wanted to.	○	○	○	○	○	○	○	Students are doing the best they can with the skills they have.
22	It's best to treat students with respect and kindness from the start so they know I care.	○	○	○	○	○	○	○	It's best to be very strict at first so students learn they can't take advantage of me.
23	Healthy relationships with students are the way to good student outcomes.	○	○	○	○	○	○	○	People will think I have poor boundaries if I build relationships with my students.
24	I feel able to do my best each day to help my students.	○	○	○	○	○	○	○	I'm just not up to helping my students anymore.
25	It is because I am good at my job that the work is affecting me so much.	○	○	○	○	○	○	○	If I were better at my job, the work wouldn't affect me so much.
26	Students do the right thing one day but not the next. This shows that they are doing the best they can at any particular time.	○	○	○	○	○	○	○	Students do the right thing one day but not the next. This shows that they could control their behavior if they really wanted to.
27	When managing a crisis, enforcement of rules is the most important thing.	○	○	○	○	○	○	○	When managing a crisis, flexibility is the most important thing.
28	If I don't control students' behavior, bad things will happen to property.	○	○	○	○	○	○	○	As long as everyone is safe, it is ok for students to become really upset, even if they cause some property damage.

CONTINUED →

ARTIC | *Attitudes Related to Trauma-Informed Care Scale*
VERSION: ARTIC-35 EDUCATION

TRAUMATIC STRESS INSTITUTE

I believe that...

		1	2	3	4	5	6	7	
29	I dread going to my job because it's just too hard and intense.	○	○	○	○	○	○	○	Even when my job is hard and intense, I know it's part of the work and it's ok.
30	How I am doing personally is unrelated to whether I can help my students.	○	○	○	○	○	○	○	I have to take care of myself personally in order to take care of my students.
31	If things aren't going well, it is because the students are not doing what they need to do.	○	○	○	○	○	○	○	If things aren't going well, it is because I need to shift what I'm doing.
32	I am most effective as a helper when I focus on a student's strengths.	○	○	○	○	○	○	○	I am most effective as a helper when I focus on a student's problem behaviors.
33	Being upset doesn't mean that students will hurt others.	○	○	○	○	○	○	○	If I don't control students' behavior, other students will get hurt.
34	If I told my colleagues how hard my job is, they would support me.	○	○	○	○	○	○	○	If I told my colleagues how hard my job is, they would think I wasn't cut out for the job.
35	When I feel myself "taking my work home," it's best to bring it up with my colleagues and/or supervisor(s).	○	○	○	○	○	○	○	When I feel myself "taking my work home," it's best to keep it to myself.

Thank you for your participation.